What is claimed is:

1. A method of controlling a storage system having primary storage volumes and replication storage volumes which replication storage volumes improve reliability of the storage system, the method comprising:

determining a boundary of a potential failure of the primary storage volumes and the replication storage volumes; and

using the determined boundary to assign replication storage volumes to assure that at least some of the replication storage volumes are outside the failure boundary.

2. A method as in claim 1 wherein the potential failure boundary is determined by software managing the storage system.

3. A method as in claim 2 wherein a logical address of locations in the storage system is used to determine the failure boundary.

4. A method as in claim 1 wherein there are a plurality of failure boundaries and each is determined by software managing the storage system.

5. A method as in claim 4 wherein information regarding the failure boundaries is stored in a server.

6. A method as in claim 5 wherein the information regarding the failure boundaries is stored as a table in the server.

7. A method as in claim 5 wherein information regarding the failure boundaries also includes information about reliability of the primary storage volumes and the replication storage volumes.

8. A method as in claim 1 wherein the boundary of the potential failure is used to assign storage volumes as replication storage volumes for a particular operation of the storage system.

9. A method as in claim 8 wherein the failure boundary information includes error correction group and controller group information for each of the primary storage volumes and the replication storage volumes.

10. A storage system comprising:

a set of primary storage volumes;

a set of replication storage volumes for improving reliability of the storage system;

a memory for storing information regarding at least one boundary of a potential failure of the primary storage volumes and the replication storage volumes; and

a controller coupled to the memory for assigning replication storage volumes to assure that at least some of the replication storage volumes are outside the failure boundary.

11. A storage system as in claim 10 wherein the memory storing information regarding the at least one boundary of a potential failure is in a server and the server is used to manage the storage system.

12. A storage system as in claim 11 wherein the information regarding the failure boundaries is stored as a table.

13. A storage system as in claim 11 wherein information regarding the failure boundaries also includes information about reliability of the primary and replication storage volumes.

14. A storage system as in claim 11 wherein information regarding the failure boundaries also includes information about performance of the primary and replication storage volumes.